

it is a crop which, when cut, quickly grows again, giving several cuttings in a season, and yielding a large amount of palatable green food. A little of this fed twice a day to the cows during the season of dry, parched pasture fields, will more than repay for the time and labor required, and will help keep the cows in better condition. As the season advances and the corn is large enough to feed, it can be used to good advantage. Corn is a crop which gives, perhaps, the heaviest yield of green feed of all our crops, and can be grown very profitably for feeding to the cattle as a soiling crop. Corn and alfalfa are the two crops which, if fed together, make an ideal roughage ration for the dairy cow.

The corn crop is the cheapest carbohydrate, heat-producing crop grown on the farm, and alfalfa is the roughage crop which contains the highest percentage of protein, besides giving an abundant yield of green food. If these two crops can be fed together, a very well-balanced ration is a result. The corn crop is not ready for use until late in the season, thus, for summer feeding, where a large herd is kept, and alfalfa grown for soiling purposes, silage from a small summer silo would be of great value to feed in conjunction with the green alfalfa.

All farms will not grow alfalfa to perfection, but on all those which will produce it, profit would be found in sowing a little near the buildings to be used in summer for the dairy cow; and all those who have a plot of it now established could use it profitably in this way.

Those dairymen who have not such a plot, and would like one for next year, might try thoroughly working up a piece of land and sowing the alfalfa in July without a nurse crop. If it does not winter-kill, a fair stand will result the following year. Where it is too low and wet for alfalfa, red clover may be tried, or peas and oats would answer very well.

The problem is to produce the milk as cheaply as possible, and as great an amount of it as possible, without having to resort to the feeding of too much concentrate material, because concentrates are costly, and, when fed in large quantities, the profits are greatly reduced. No better method of preventing a falling off in milk, and consequently in profits, during the extreme summer heat, is known than by the feeding of a soiling crop, or better, green alfalfa in conjunction with corn or corn silage.

Dairy Notes from the Brantford District.

Editor "The Farmer's Advocate":

In the early part of June, Frank Hearn, the efficient Chief Dairy Instructor for Western Ontario, and the writer, took a short trip among the factories of what is known as the Brantford District. A brief record of what we saw may be of interest to "The Farmer's Advocate" readers.

Our first stop was at St. George, where visits were paid to the condensary of Malcolm & Son, and the creamery owned and operated by F. Uren. The condensary was formerly used for the manufacture of cheese in summer and butter in winter, but has been remodelled to serve the purpose of condensing milk. Some butter is also made. At the time of our visit they were receiving about 16,000 pounds of milk daily—too much, Mr. Malcolm said, for the present demand for condensed milk, which had slackened off considerably since the winter, at which time they were unable to fill their orders.

We sampled the finished product, and found it very satisfactory. The various brands are put up in three sizes of tins. These tins are sealed, after filling, with a special machine which does the work very effectively and rapidly, thus doing away with the plan of soldering, which is a rather expensive and slow process.

Farmers supplying milk to the St. George condensary were being paid one dollar per 100 pounds of milk on the stand, which is a good price for the month of June; yet, in spite of this fact, we found Mr. Uren doing a good business in his creamery. In fact, the business has grown so that he has built a new creamery on the same street as is located the condensary, but in the eastern part of the town. The proprietor was preparing to move into his new creamery at the time; was waiting for his gas engine to arrive, as he proposes to use natural gas for generating power, doing away with the steam boiler and engine as a means of power, the steam boiler and engine are so well adapted for cleaning purposes only. The fact that both condensary and creamery are so well patronized indicates that a large quantity of milk is produced in the vicinity of St. George. And not all of it is manufactured at home industries, as we met one prominent farmer who is shipping cream to Toronto.

The Brant Creamery, located in the City of Brantford, was the next place of call. Here the Stillman Bros. have built a nice little creamery (already too small), and are doing a good business—much larger than they anticipated. They use electric power for churning, and have a small upright boiler for steam to cleanse vats, etc. The special feature of this creamery is the testing of

each delivery of cream for fat, and the mailing to each patron of a postal card on receipt of cream, which comes in largely by rail. On the postal card is printed:

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We received from you to-day.....can of cream, weighing.....pounds, testing.....per cent.; total pounds of butter-fat is.....; price per pound of fat is.....; value of cream is.....; you can return by.....train. Checks issued on the 10th and 25th of each month. Keep your cream cool and sweet as possible.
BRANT CREAMERY.

We do not know of any other creamery in Canada being operated just on these lines, and it will be interesting to observe the results. That all is not smooth sailing, we would gather from a letter which the firm had just received from one of their patrons, when the old question of unfairness or dishonesty in testing was forcibly put forward by a producer. I wonder if we shall ever be able to evolve a plan of testing which will be entirely satisfactory to patrons and creamerymen? The only plan which we can think of as at all likely to solve the problem is co-operative testing by a disinterested party. This means a heavy expense, especially for those creameries which test each and every delivery separately; but would not the money be well spent if it would prevent the suspicion in the minds of farmers that they are being robbed by the creameryman? It would also relieve the creamerymen of a great deal of worry.

Our next move was to Dunnville, passing through the gas and oil region now becoming famous. Boring plants, gas and oil wells are in evidence along the railway from Caledonia to Dunnville. The hay crop will be light all through this section, although we saw some fairly promising fields of alfalfa. Mr. Phillips, the proprietor of the Dunnville Creamery, uses natural gas under his steam boiler, and has discarded his steam engine, using a gas engine for power. It is not long since it was considered that a creamery could not be successfully run in the Dunnville section, owing to bad roads and lack of cows. This creamery is now one of the largest in that dis-

trict, and one of the most progressive dairymen in the section.

On the road from Dunnville to Canboro we passed but two farms where there were silos. On making inquiry at the factory, we found that these two men were the only ones along that road who sent cream to the winter creamery which operates after the cheese season is over. This speaks well for the silo as an adjunct or necessity for the winter creamery. We were sorry to learn that the proprietor of the Canboro factory was away, but the efficient cheesemaker, Lea Marshall, very kindly took us through the plant and allowed us to bore the cheese.

An addition to the press room, the installation of power agitators for stirring the milk and curd, a plentiful supply of ice in the ice-house for cooling the cheese in the curing-room, the use of natural gas under the boiler for firing, the weighing of the pasteurized whey to each patron by a man specially hired for this purpose, and the excellent quality of the cheese on the shelves, were distinctive features at this factory.

The use of natural gas for lighting, fuel and power, and the growth of alfalfa, are marked characteristics of the dairy industry in the Caledonia and Dunnville sections. These two things give farmers and manufacturers a very decided advantage over other localities, and we may expect a marked development of dairying in these places which at one time were considered more or less unsuitable for dairying. H. H. D.

POULTRY.

The Common Chicken Mite.

Editor "The Farmer's Advocate":

The worst external parasite of poultry is the common red chicken mite, and since the hot weather has come in, it will be multiplying very rapidly. This pest causes a great deal of loss to poultrymen and farmers by killing chicks and hens, and by greatly reducing the egg supply. The same species of mite will also attack horses, and even man.

SYMPTOMS OF MITES.

When the mites are numerous, the hens become poor and languid. The feathers do not lie close to the body, and the head and comb become pale. The cause of this is the irritation and loss of blood due to the myriads of parasites which feed on the fowls at night. The sitting hens suffer the most, as the nesting material furnishes a good hiding place, and the mites have easy access to their victim, causing a rapid loss of blood. Their ravages frequently result in the hen dying on the nest, or else leaving the eggs a few days before they hatch, thus spoiling the hatch in either case. If the hen does incubate the eggs, the

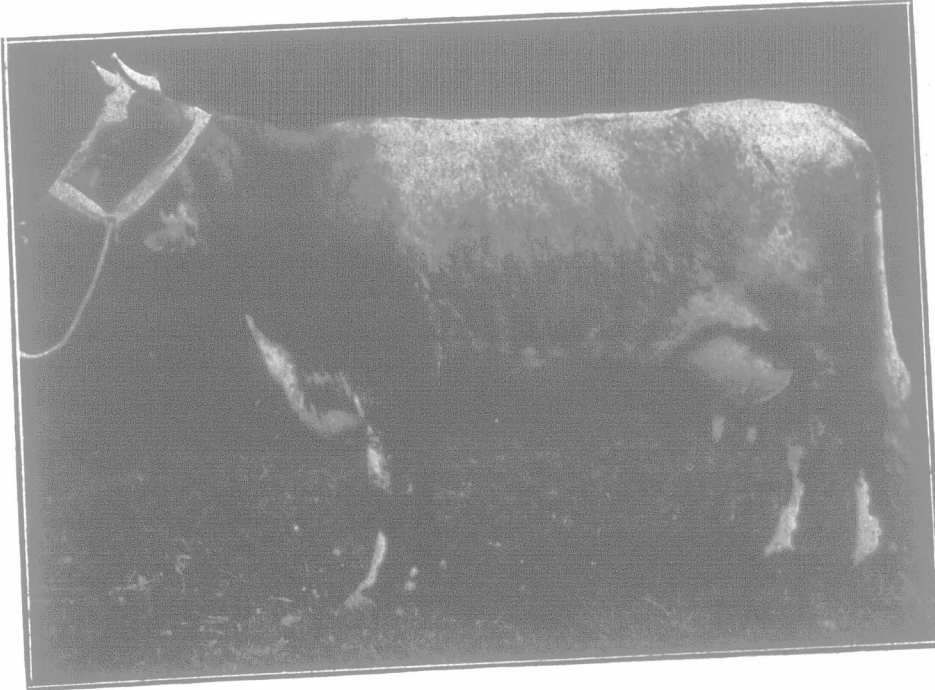
young chicks are attacked immediately, and either killed or so weakened that they never survive the first couple of weeks, which is the critical period in their lives.

DESCRIPTION OF MITES.

The full-grown mites are from 1-25 to 1-20 of an inch, elliptical, and somewhat flattened in shape. They are grayish in color and covered with darker spots, except after feeding, when the blood they have consumed gives them a reddish appearance. The gray and red mites are thus the same species. The mites run rapidly by means of eight slender legs. They have mouth-parts adapted for sucking, composed of needle-like mandibles, which they insert under the skin. The mites differ in this respect from the poultry lice, which have mouths adapted for biting and not for sucking.

HABITS.

Owing to the fact that the mites do not live on their host at all times, like the louse, their presence is frequently unknown until they are very numerous. They live and breed in cracks, crevices and corners of the roosts and nests, in dry manure, and everywhere they can hide. At night they emerge from their hiding-places and attack all the fowl they can find. In the case of sitting



Rosebud 7th.

Dairy Shorthorn cow. First at Bath and West of England Show, June, 1911.

Sixteen rigs of various kinds are engaged in collecting the cream. The individual-can system is followed here. We saw some of the cream delivered, and found it of nice, sweet, clean quality. A portion of the cream is churned on the day of delivery, owing to lack of vat room, and the remainder early next day. Cream is received four days of the week only, yet comes in in good condition, showing that under the two-day-per-week system of collecting cream it is possible to make a fine quality of butter, if the cream be kept cool and sweet. Mr. Phillips is looking for an iced-butter car, which would be a great help. At present, cars have to be iced and paid for by the buyer or seller, without any aid from the Government. As there are a number of creameries in this southern group which would benefit by the refrigerator car, Mr. Hearn promised to take the matter up with the Dairy Commissioner, and see if a regular service could not be secured.

Canboro and Caledonia cheese factories were on our programme, but we found the liverymen unwilling to send a rig to Canboro, then to Caledonia and home in one day, hence we were obliged to leave out one or the other of these factories. We decided to drive to Canboro, where is located the factory of J. N. Paget, a past president of the Western Ontario Dairymen's Asso-